Biotinylated Mouse ICAM-1 / CD54 Protein, His,Avitag™ (MALS verified)

Catalog # IC1-M82E8

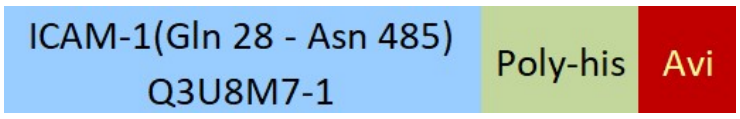
Synonym

ICAM1,BB2,CD54,P3.58

Source

Biotinylated Mouse ICAM-1, His,Avitag (IC1-M82E8) is expressed from human 293 cells (HEK293). It contains AA Gln 28 - Asn 485 (Accession # Q3U8M7-1).
Predicted N-terminus: Gln 28

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 53.8 kDa. The protein migrates as 75-116 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Biotinylation

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Biotin:Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

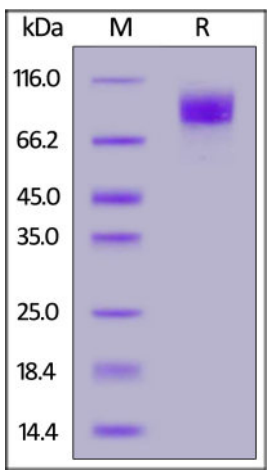
Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

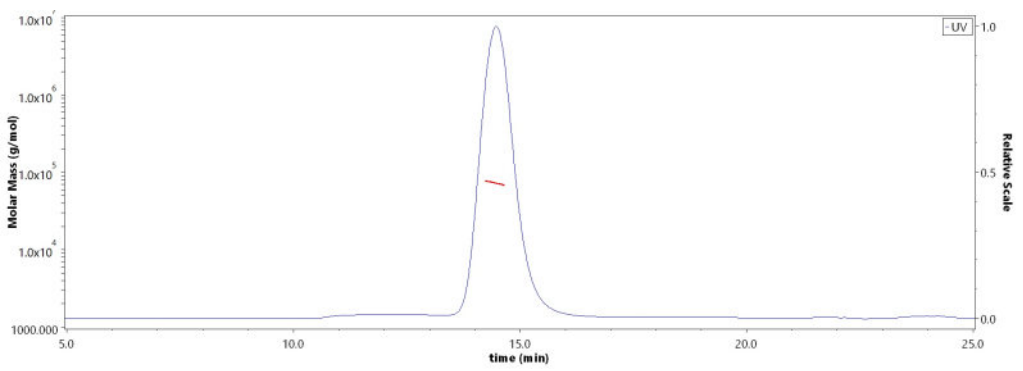
This product is stable after storage at:
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Mouse ICAM-1, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS



The purity of Biotinylated Mouse ICAM-1, His,Avitag (Cat. No. IC1-M82E8) is more than 85% and the molecular weight of this protein is around 62-84kDa verified by SEC-MALS.
Report

Background

Inter-Cellular Adhesion Molecule 1 (ICAM-1) is also known as Cluster of Differentiation 54 (CD54), is a member of the immunoglobulin superfamily, and is a cell surface glycoprotein which is typically expressed in low concentrations on endothelial cells and cells of the immune system. The protein encoded by this gene is a

type of intercellular adhesion molecule continuously present in low concentrations in the membranes of leukocytes and endothelial cells. Upon cytokine stimulation, the concentrations greatly increase. ICAM-1 can be induced by interleukin-1 (IL-1) and tumor necrosis factor alpha (TNFα) and is expressed by the vascular endothelium, macrophages, and lymphocytes. ICAM-1 is a ligand for LFA-1 (integrin), a receptor found on leukocytes. When activated, leukocytes bind to endothelial cells via ICAM-1/LFA-1 and then transmigrate into tissues. ICAM-1 has been implicated in subarachnoid hemorrhage (SAH). Levels of ICAM-1 are shown to be significantly elevated in patients with SAH over control subjects in many studies. ICAM-1 expressed by respiratory epithelial cells is also the binding site for rhinovirus, the causative agent of most common colds.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.